# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

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In the Matter of	)	
	)	
Revision of the Commission's Rules To	)	CC Docket 94-102
<b>Ensure Compatibility With Enhanced 911</b>	)	
(E911) Emergency Calling Systems	)	
	)	

To: Wireless Telecommunications Bureau

# REQUEST FOR A TEMPORARY WAIVER OF THE COMMISSION'S E911 PHASE II LOCATION ACCURACY RULE

RCC Atlantic Licenses, Inc. ("RCC"), by its attorneys and pursuant to 47 C.F.R. § 1.925, hereby requests a temporary waiver of the 47 C.F.R. § 20.18(h) Phase II enhanced 911 ("E911") requirement that carriers relying on network-based technologies comply with a particular standard for Phase II accuracy and reliability (the "Location Accuracy Rule"). This petition relates to RCC's commercial wireless service offering in the State of Vermont and requests waiver of the Location Accuracy Rule for the State of Vermont.

As set forth below, enforcement of the Location Accuracy Rule upon RCC and its service offering in Vermont would not serve the underlying purpose of the rule. Further, it would ignore the unique facts and circumstances involving RCC's service offering in Vermont. As such, grant of the temporary waiver would serve the public interest.

RCC recognizes that the Location Accuracy Rule does not require that Phase II accuracy data be isolated as to any particular size of geographic area, such as the area within a particular state. It is possible that if Phase II accuracy data obtained in the state of Vermont were averaged with data obtained over a larger region that the combined results might meet the standards set forth in the Location Accuracy Rule.

#### I. Background

RCC holds Commercial Mobile Radio Service licenses that encompass the entire state of Vermont. The company has been providing commercial wireless service in Vermont since 1998 when it acquired cellular licenses from another operator. Pursuant to those licenses RCC provides wireless services that employ GSM and TDMA digital technologies, as well as analog technology. Because there is no commercially available "handset-based" E911 solution for such wireless networks, RCC by necessity has deployed a "network-based" technology for Phase II E911 capability after receiving a request for Phase II service from the State of Vermont Enhanced 9-1-1 Board ("Vermont 9-1-1 Board"). RCC has worked with the Vermont 9-1-1 Board and its then Executive Director, Evelyn Bailey, since 2002 to implement Phase II services in Vermont in the most effective manner possible considering the terrain obstacles faced by RCC. RCC has kept the Vermont 9-1-1 Board informed of RCC's Phase II deployment progress and has made known the obstacles encountered by RCC in meeting the standards set out by the Location Accuracy Rule.

#### II. The Location Accuracy Rule and Relief Sought by RCC

The Location Accuracy Rule, in pertinent part, states as follows:

- (h) Phase II accuracy: Licensees subject to this section shall comply with the following standards for Phase II location accuracy and reliability:
- (1) For network-based technologies: 100 meters for 67 percent of calls, 300 meters for 95% of calls;

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(3) For the remaining 5 percent of calls, location attempts must be made and a location estimate for each call must be provided to the appropriate PSAP.

RCC requests a waiver of 47 CFR § 20.18(h) for Vermont until such time as it is technically and commercially feasible for RCC to deploy equipment and/or software that allows RCC to comply with the Location Accuracy Rule or, in the alternative, until such time as a handset-based solution becomes feasible for RCC.

### III. Compliance Efforts to Date

RCC began its deployment of Phase II in Vermont on or about January 7, 2002.

Those efforts were responsive to a state-wide request to RCC by the Enhanced 9-1-1

Board directing RCC to provide Phase II service to the following PSAPs:

Hartford Police Department
Lamoille County Sheriff
Montpelier City Police
Shelburne Police Department
Springfield Police Department
St Albans Police
Vermont State Police – Rockingham
Vermont State Police – Rutland
Vermont State Police – Williston

With considerable effort and expense incurred by RCC the statewide deployment was completed by March 1, 2004. Thereafter, on March 22, 2004, RCC was notified by the Vermont 9-1-1 Board that the Vermont State Police – Derby, a newly created PSAP in the state, was ready to provide Phase I and Phase II. RCC completed that Phase I and II deployment on May 13, 2004. All deployment activities since the original request, including maintenance of sites, have been coordinated through the Vermont 9-1-1 Board.

Without a handset-based solution available for RCC's TDMA and later GSM network, RCC was left with no alternative but to employ a network-based solution for Phase II deployment. Initially RCC deployed 55 Grayson Enterprises' Wireless Location Sensor units to 55 TDMA cell sites. One RCC-owned Grayson Geo-Location Control System was installed at the RCC data center in Colchester.<sup>2</sup> The out-of-pocket cost of this deployment (goods and services) was approximately \$1, 300,000.<sup>3</sup>

As the RCC network continued to grow, RCC elected to contract with Polaris Wireless ("Polaris") to utilize the Polaris Predicted Signature Database ("PSD") solution. Deployment of the Polaris system began in September of 2004, and since that time RCC has implemented the Polaris PSD solution at every RCC GSM and TDMA site serving the state of Vermont. In order to support this deployment, RCC also deployed a Polaris Serving Mobile Location Center ("SMLC") and an Agilent Abis Monitoring Server ("AMS"). So far, RCC has spent approximately \$2,200,000 to deploy this solution.4

In addition to the technology that is deployed on the cell site level, a Mobile Positioning Center ("MPC") must be present within the network. RCC's chosen MPC provider is Intrado Inc. In order to support the RCC Phase II deployment within the state of Vermont RCC has expended approximately \$51,000 in one-time provisioning expenditures and \$290,000 in recurring service charges.

RCC's total costs to date to deploy and maintain a Phase II system in Vermont total approximately \$3,834,000. However, money and effort alone have not been enough

Wireless Location Sensors measure the handset radio signal. Grayson Enterprises ("Grayson") was subsequently acquired by Andrew Corporation who currently markets and supports the Grayson product line.

This cost and other E911 deployment costs incurred by RCC were not reimbursed to RCC. The state of Vermont has not provided cost reimbursement for wireless carriers that comply with E911 deployment requests.

This figure does not include RCC's costs to purchase and install the Grayson product.

to overcome the limitations of a network-based technology in a state where mountainous terrain and winding roads through sparsely populated areas limit the number of cell sites from which triangulation can be realized.

#### IV. Waiver Standard

A waiver is appropriate whenever special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest. The Commission has established standards to be used when acting upon requests for a waiver of E911 deadlines and obligations. The Commission has held that it will grant waiver requests that are specific, focused, and limited in scope, with a clear path to full compliance. Further, the Commission has stated that carriers should undertake concrete steps necessary to come as close as possible to full compliance and should document their efforts aimed at compliance in support of any waiver request. As set forth below, RCC meets the Commission's standards and that the circumstances underlying the request, in sum, present a special case that justifies a limited E911 Phase II waiver and extension.

#### V. Temporary Waiver is Necessary to Serve the Public Interest

#### A. Commitment and Path to Achieving Compliance

RCC is, and has been, committed to meeting the standards set out in the Location Accuracy Rule. After considerable research of the capabilities of all known vendors that

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<sup>&</sup>lt;sup>5</sup> 47 C.F.R. § 1.3; Northeast Cellular Telephone Co. v. FCC, 897 F.2d 1164, 1166 (D. C. Cir. 1990) (citing WAIT Radio v. FCC, 418 F.2d 1153, 1159 (D. C. Cir. 1969)).

Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Fourth Memorandum Opinion and Order, 15 FCC Rcd 17442, 17457-58, paras. 43-44 (2000) (E911 Fourth Memorandum Opinion and Order).

E911 Fourth Memorandum Opinion and Order, 15 FCC Rcd at 17458, para. 44

Id

provide and support a network-based solution RCC installed Phase II equipment and software offered by two different vendors. RCC also selected Intrado as its E911 services and ALI database provider. RCC continues to work with each of its vendors to improve the accuracy results achieved from its Phase II deployment.

As RCC continues to add cell sites in Vermont, an effort aided considerably by RCC's receipt of federal Universal Service Funds as the result of its designation as a competitive Eligible Telecommunications Carrier ("ETC") in the state, Phase II accuracy results will continue to improve. A network-based solution will function best when there is a cluster of cell sites in an area, and RCC will add sites throughout the state as it performs its ETC responsibilities.

# B. Strict Enforcement of the Location Accuracy Rule Would Result in Consumers Having Decreased Access to Emergency Services in Rural Areas of Vermont

Strict enforcement of the Location Accuracy Rule could force RCC to discontinue or reduce service in parts of the State of Vermont, cutting off the ability of customers and roamers to place calls, including emergency calls. Throughout the State, the terrain is predominantly mountainous. In such areas RCC's cell sites typically are located along highways that wind through mountain passes. Cell site configurations of this type are not conducive to providing Phase II compliant location data. Moreover, for a variety of reasons it is impractical and in some environmentally sensitive areas impossible for RCC to add enough sites soon enough in rural areas of Vermont to provide the accuracy data that complies with the rule.

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Section III hereof details of RCC's purchase and installation of Phase II equipment and software offered by Grayson and Polaris.

Currently, RCC's GSM, TDMA and analog customers have the ability to dial "911" in rural areas of Vermont. For example, an RCC subscriber driving in Vermont will encounter mountainous, heavily wooded, remote and rural landscape. Nonetheless, that customer, with a GSM, TDMA or analog handset, will still be able to dial "911" should an emergency arise. Strict enforcement of the Location Accuracy Rule would prevent that customer from obtaining emergency services (such as the ability to dial "911") because, if forced to comply, RCC would not be able to continue to operate its networks at current capacity in many rural areas of Vermont. Rather, RCC's focus is on upgrading its hardware and software to improve service and Phase II accuracy location data in the rural areas of the state. If obligated to comply with the Location Accuracy Rule, the end result would likely be a system whereby consumers have "decreased access to emergency services" especially in rural and remote areas of RCC's service area.

## VI. Conclusion

Based on the foregoing reasons, grant of a limited waiver of the Commission's Phase II E911 rules will serve the public interest.

Respectfully submitted,

RCC ATLANTIC LICENSES, INC.

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Pamela L. Gist

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Its Attorneys

August 31, 2005

### **DECLARATION**

- I. Chance Richardson, hereby state and declare:
- I am Regulatory Affairs Project Manager of Rural Cellular Corporation.
- I am familiar with the facts contained in the foregoing "Request For A Temporary Waiver of the Commission's E911 Phase II Location Accuracy Rule" and I verify that those facts are true and correct to the best of my knowledge and belief, except that I do not and need not attest to those facts which are subject to official notice by the Commission

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this \_\_\_\_\_ day of August, 2005

Chance Richardson